# DEC STD 043-1 Packaging Requirements - Sheets, Blanks, or Coils of Steel or Aluminum

**DOCUMENT IDENTIFIER:** A-DS-EL00043-01-0000 Rev B1, 15-Jun-1990

**ABSTRACT:** This section of DEC STD 043 defines Digital's requirements for packaging steel or aluminum sheets, blanks, or coils. Refer to DEC STD 043-0 Packaging Requirements for Digital Products, Parts, Assemblies, and Materials for other Packaging requirements.

**APPLICABILITY:** These procedures are mandatory for all Digital facilities and departments involved with packaging, distributing, receiving, or transporting steel or aluminum sheets, blanks, or coils.

**STATUS:** APPROVED 15-Jun-1990; use VTX SMC for current status.

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APPROVAL: This document has been reviewed and recommended for approval by the DEC STD 043 General Review group and the DEC STD 043 Advisory Committee for use throughout Digital. Rev B1 incorporates clerical changes only.

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# 1 INTRODUCTION

## 1.1 PURPOSE

To ensure that raw materials and preformed metal blanks are properly palletized and protected for mechanical handling within Digital's distribution/storage systems.

## 1.2 RESPONSIBILITIES

### 1.2.1 Quality Personnel

It is the responsibility of Digital's Quality Personnel to ensure that the provisions of this document are formally specified to vendors through appropriate purchase orders and are adhered to by Distribution and Storage Services.

# 2 REQUIREMENTS

The requirements of *DEC STD 043-0 Packaging Requirements for Digital Products, Parts, Assemblies, and Materials* are part of this document, where applicable and where not superseded by specific provisions of this document.

# 3 PALLETS

## 3.1 CONSTRUCTION

### 3.1.1 Sheets

Steel or aluminum sheets shall be packaged on pallets as specified in Figures 1 through 5. Pallets shall be chosen to match the dimensions of the sheets.

Sheets shall be protected from physical damage, rust, and corrosion by historically proven commercial methods.

### 3.1.2 Blanks

Steel or aluminum blanks shall be packaged on pallets with the dimensions specified by Figure 6 and Table 1.

Blanks shall be protected from physical damage, rust, and corrosion by historically proven commercial methods.

**NOTE**

**The following pallet illustrations specify nominal dimensions for pallets.**

**Figure 1: Sheets Pallet, 36 x 48 inches**

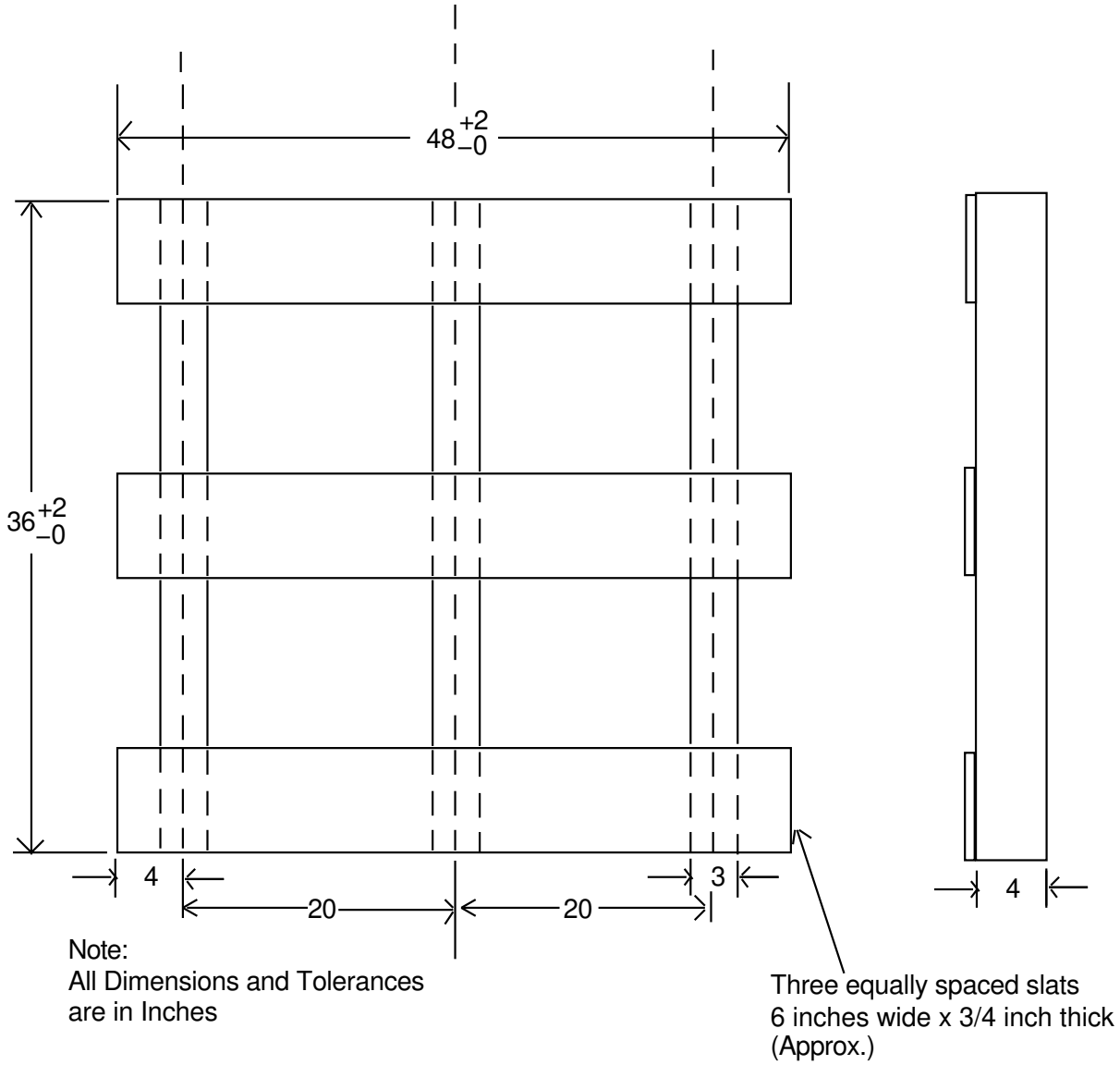
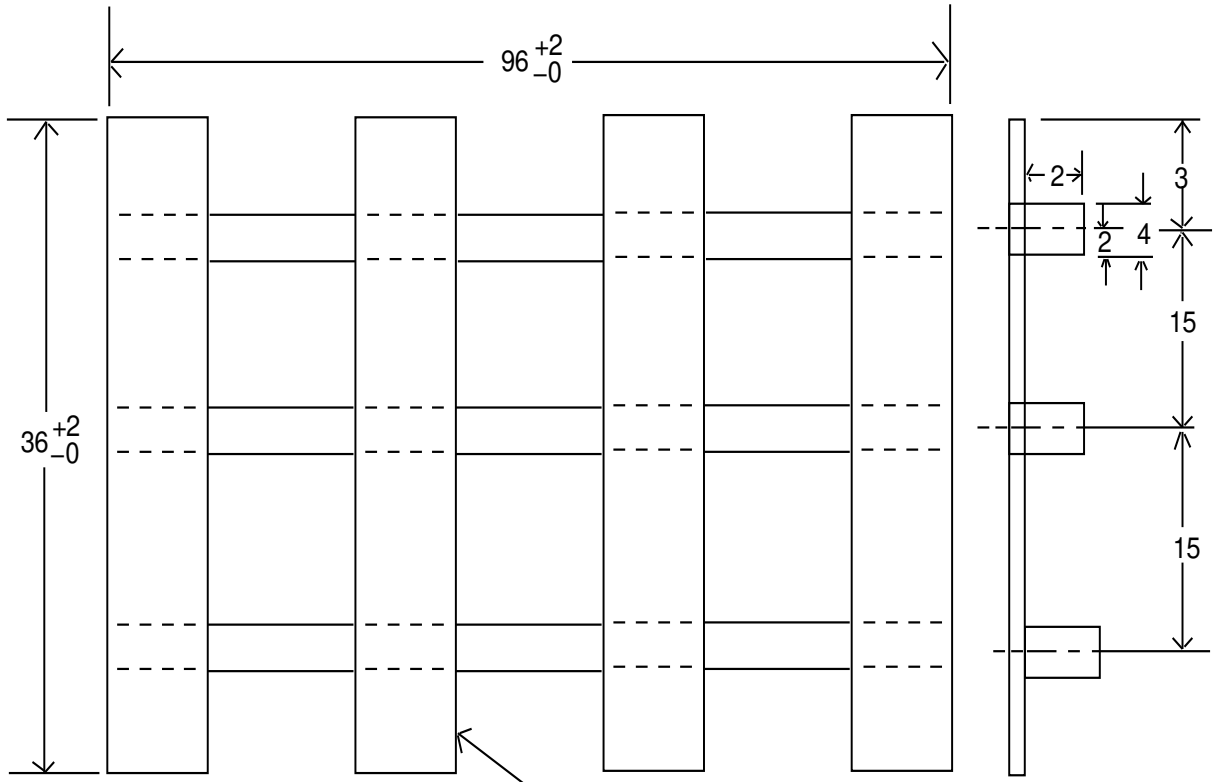


**Figure 2: Sheets Pallet, 96 x 36 inches**




Note:
All Dimensions and Tolerances
are in Inches

Four equally spaced slats
6 inches wide x 3/4 inch thick
(Approx.)

**Figure 3: Sheets Pallet, 48 x 60 inches**

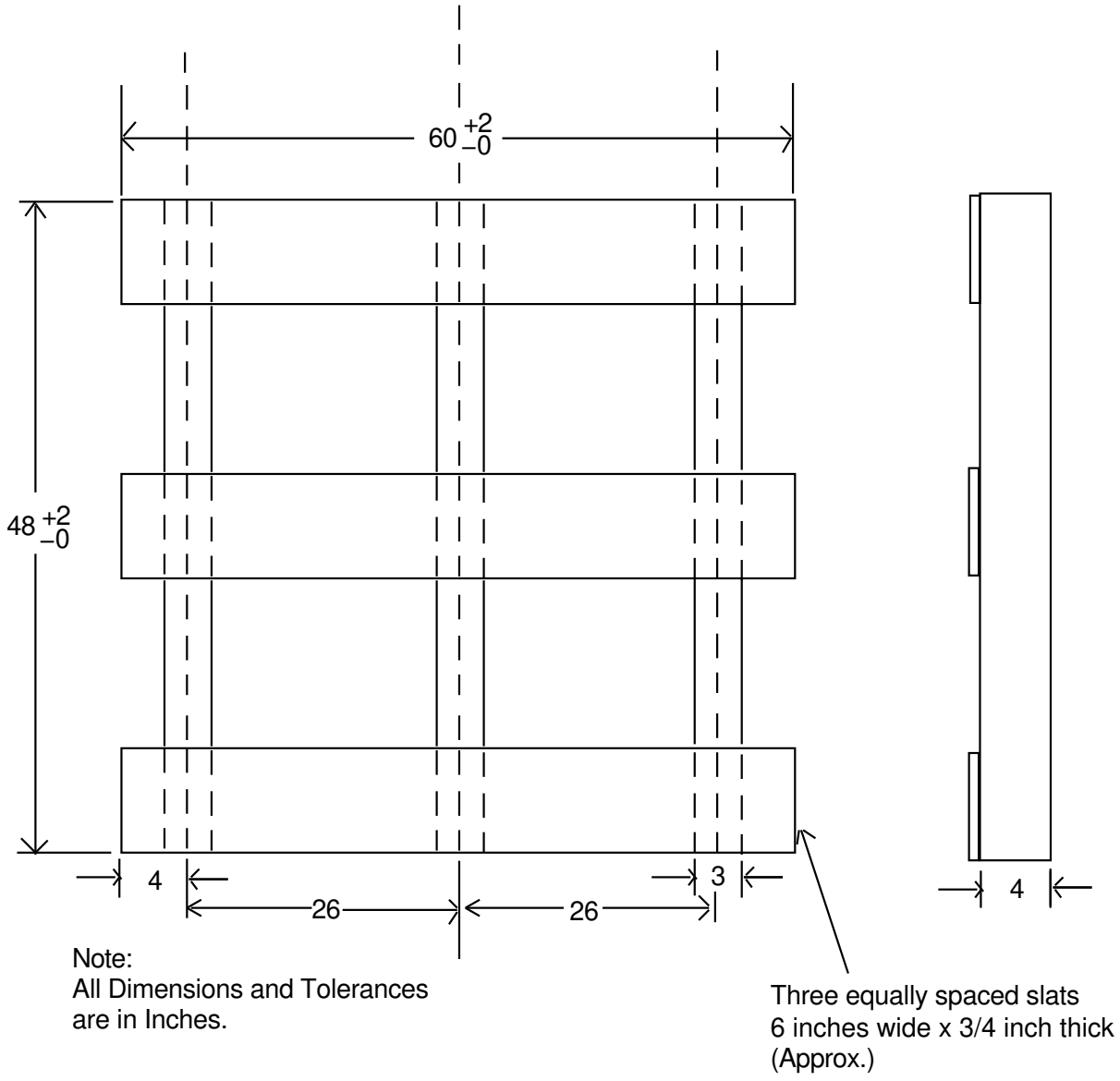


**Figure 4: Sheets Pallet, 72 x 48 inches**

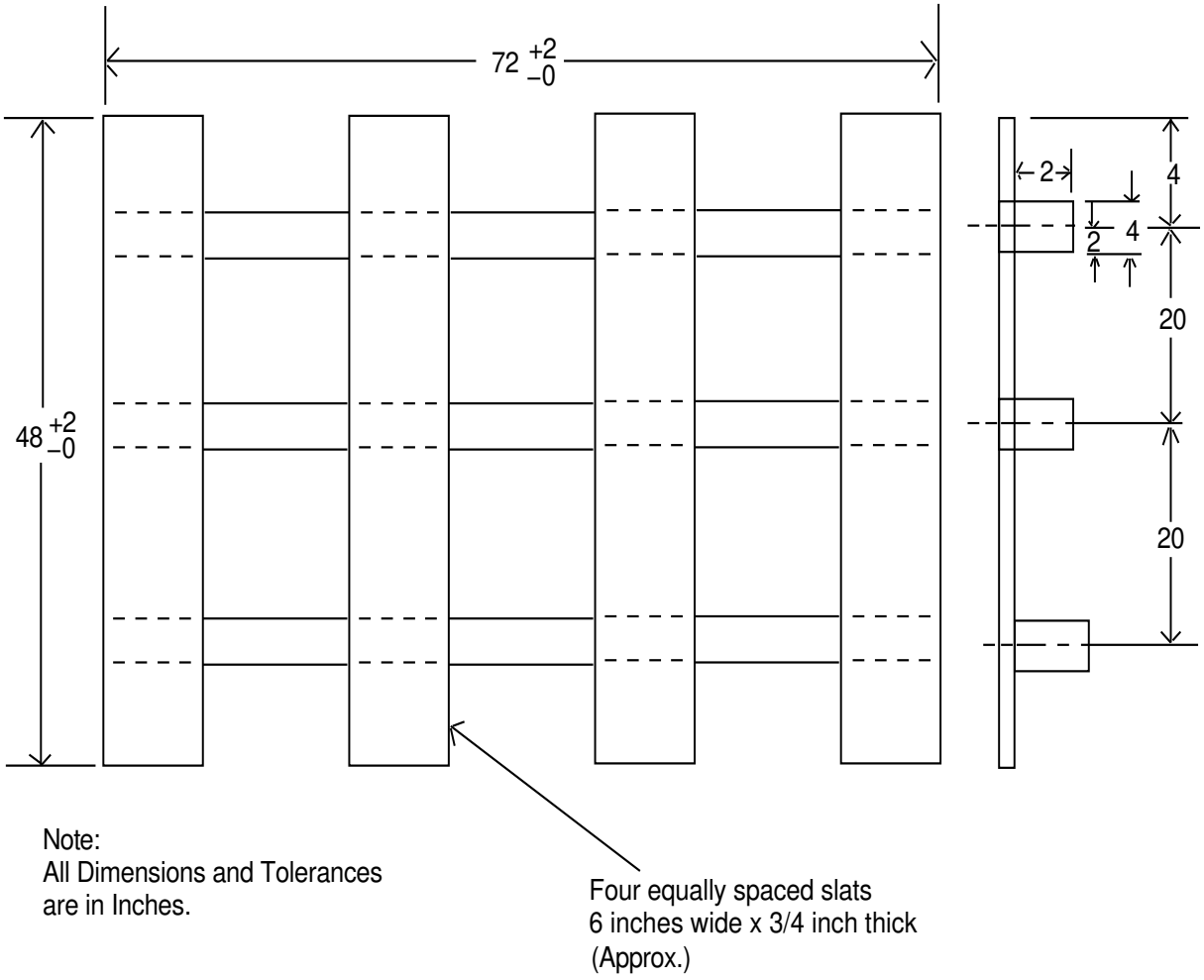
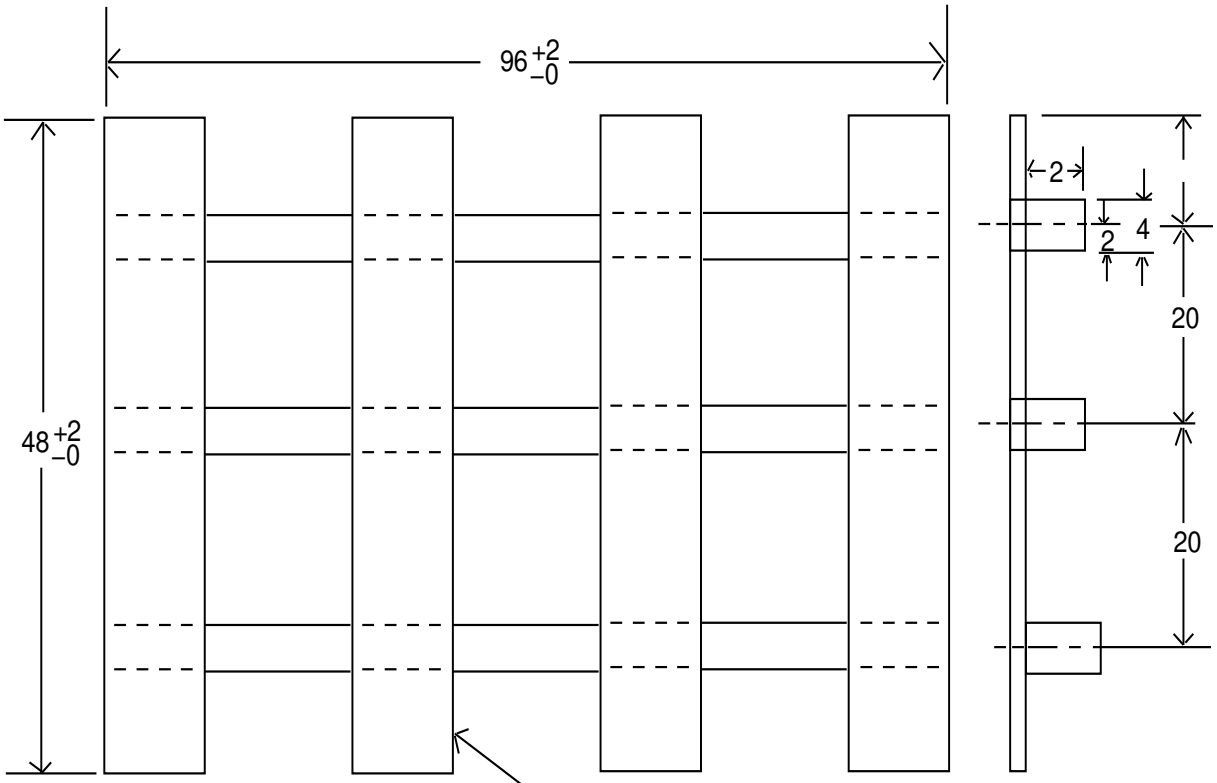


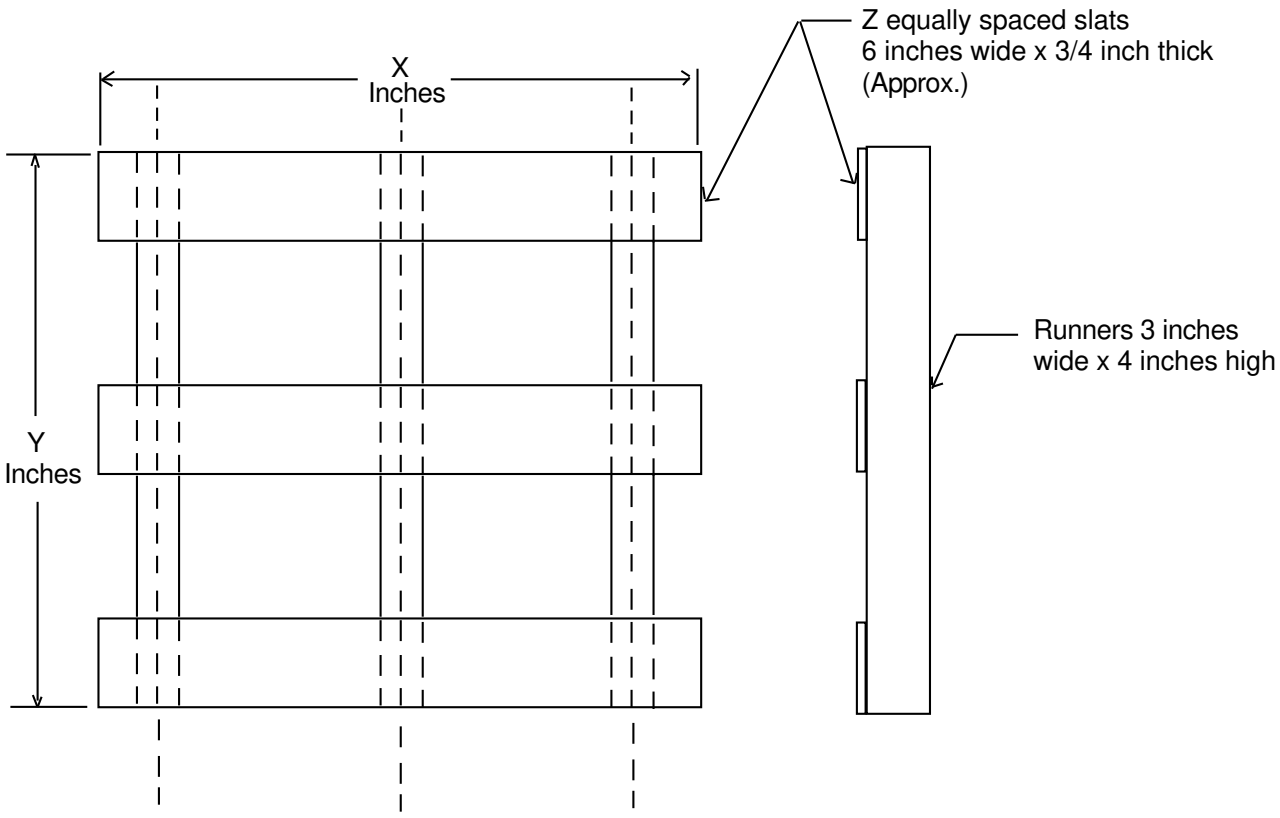
**Figure 5: Sheets Pallet, 96 x 48 inches**




Note:
All Dimensions and Tolerances
are in Inches.

Four equally spaced slats
6 inches wide x 3/4 inch thick
(Approx.)

**Figure 6: Blanks Pallet**




Values of X, Y, and Z are listed in Table 1.

**Table 1: Blanks Pallet Dimensions (inches)**

| X | Y | Z |
|---|---|---|
| 36 | 48 | 3 |
| 36 | 38 | 3 |
| 37 | 42 | 3 |
| 40 | 35 | 3 |
| 71 | 42 | 3 |
| 32 | 42 | 4 |
| 48 | 36 | 3 |
| 42 | 25 | 3 |
| 36 | 32 | 3 |
| 42 | 23 | 3 |
| 33 | 29 | 2 |
| 33 | 25 | 2 |
| 64 | 36 | 5 |
| 36 | 20 | 2 |
| 27 | 23 | 2 |
| 42 | 28 | 3 |
| 48 | 35 | 3 |
| 60 | 48 | 5 |
| 39 | 29 | 3 |
| | | |
| 27 | 22 | 2 |
| 36 | 30 | 3 |
| 40 | 25 | 3 |
| 40 | 20 | 3 |
| 36 | 25 | 3 |
| 37 | 42 | 3 |
| 56 | 42 | 4 |
| 46 | 42 | 3 |
| 48 | 32 | 3 |
| 58 | 25 | 2 |
| 27 | 23 | 3 |
| 37 | 36 | 3 |

Values in this table refer to the dimensions of the blank pallet in Figure 6.

### 3.1.3 Coils

Steel or aluminum coils shall be packaged on pallets as illustrated in Figures 7 and 8. The coil width shall not exceed 24 inches, the outside diameter shall not exceed 48 inches, and the inside diameter shall be 16 inches, with each dimension allowing a tolerance of ±2 inches.

Coils shall be protected from physical damage, rust and corrosion by historically proven commercial methods.

### 3.1.4 Weight

#### Maynard

Total received weight per pallet shall not exceed 2000 pounds for steel or aluminum sheets or blanks.

#### Westfield

Total received weight per pallet shall not exceed 3000 pounds for steel or aluminum sheets or blanks, and shall not exceed 4000 pounds for coils.

### LOADS

Pallet loads shall be fastened with steel or non-metallic strapping, applied parallel to the pallet runners. All straps shall be applied straight, and shall be tight enough to eliminate looseness on the sides or top of the load. The breaking strength of the joint shall be at least 50% of the breaking strength of the band. Edge or corner protectors shall be used. The weight per strap is equal to the gross weight of the pallet divided by the number of straps, and shall be well within the manufacturers recommended safe values.

The pallet shall be able to withstand the usual truck or trailer stacking and loading without damage or subsequent handling problems.

## 3.2 MARKING

Each pallet shall be marked, in a clearly visible manner, with the following information.

a. Destination, name and address
b. Digital purchase order number
c. Digital part number, revision level
d. Dimensions of individual sheets, blanks or coils
e. Number of parts on the pallet (blanks),

   OR

   Net weight (sheets and coils)
f. Gross weight
g. Date shipped

**Figure 7: Vertical Coils**

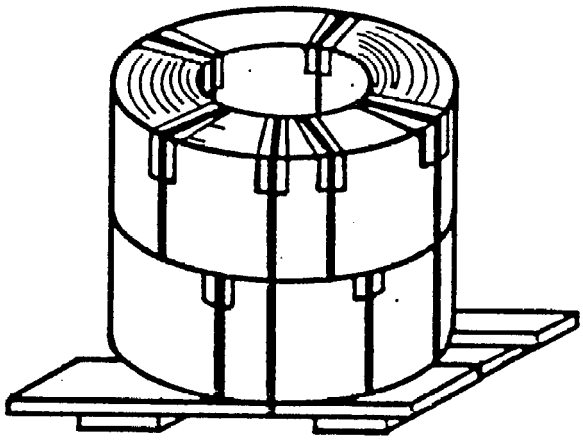
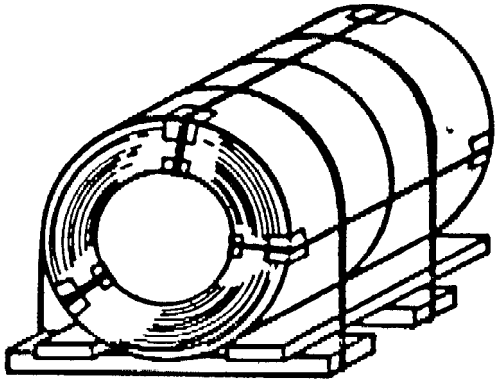


**Figure 8: Horizontal Coils**



### 3.3 POSITIONING ON TRAILERS

Pallets containing sheets, blanks, and vertical coils must be positioned on the trailer such that lift truck access is from the rear only. The trailer shall not be accessed from any other side.

Pallets containing horizontal coil pallets must be positioned so that the eye of the coil faces the rear of the trailer, enabling access of a lift truck with a coil ram.

# APPENDIX A REFERENCED DOCUMENT

## A.1 EL-Class Digital Documents

| EL-Class Number | Document Title |
|---|---|
| EL-00043-00 | *DEC STD 043-0 Packaging Requirements for Digital Products, Parts, Assemblies, and Materials* |

Use VTX SMC to order copies of EL-class documents from Standards and Methods Control. Send distribution questions to JOKUR::SMC or call DTN: 234-4423.

# APPENDIX B RELATED DOCUMENTS

## B.1 Other Documents

| Document Number | Document Title |
|---|---|
| ASTM A700 | *Packaging, Marking, and Loading Material for Steel Products for Domestic Shipment* |
| FF-N-105 | *Nail, Brads, Staples and Spikes. Wire, Cut and Wrought* |
| MIL-STD-731 | *Quality of Wood Members for Containers and Pallets* |

### Ordering Information

ASTM A700 is available from the American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103

FF-N-105 and MIL-STD-731 are available from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120 Telephone (215) 697-3321

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